Seattle City Light

INTERCONNECTION STANDARDS
For Customer-Owned, Grid Connected
Electric Generating Systems of 25kW or Less

(Appendix B to Interconnection & Net Metering Agreement)

A. General

This "Interconnection Standard for Customer-Owned, Grid Connected Electric Generating Systems of 25 kilowatts or Less" sets forth the requirements and conditions for interconnected non-utility-owned electric generation where such generation may be connected for parallel operation with the electrical system of SEATTLE CITY LIGHT (SCL). Generating systems will be permitted to interconnect to SCL's electric distribution system (26 kV and below) only after a determination by SCL that such interconnection will not interfere with the operation of the distribution circuit.

Underground Distribution Networks

Net Metering is not allowed where Seattle City Light provides underground distribution network service to the customer, unless safety concerns can be adequately addressed as determined by Seattle City Light, per City Ordinance 120111.

B. Interconnection Requirements

1. Customer shall comply with all the latest applicable National Electric Code (NEC) requirements [NEC Articles 690 and 705], building codes, and shall obtain electrical permit(s) for the equipment installation.

2. Customer shall provide space for metering equipment as per Electric Utility Service Equipment Requirements Committee (EUSERC) requirements and shall also provide a meter base as per SCL requirements.

3. Customer's overcurrent device at the service panel shall be marked to indicate power source and connection to SCL's distribution system.

4. The Customer shall assume the full responsibility for the routine and any other maintenance of the generator and protective equipment and keeping of records for such maintenance. These records shall be available to SCL for inspection at all times.

5. Customer's power production control system shall comply with NEC Articles 690 and 705; and applicable and current Institute of Electrical and Electronics Engineers (IEEE) Standards 929 for parallel operation with SCL; in particular the:

   a. Power output control system shall automatically disconnect from SCL power source upon loss of SCL voltage and not reconnect until SCL voltage has been restored for at least ten (10) minutes continuously.
   b. Power output control system shall automatically initiate a disconnect from SCL source within six (6) cycles if Customer's voltage falls below 60 Volts rms to ground (nominal 120 V rms base) on any phase.
   c. Power output control system shall automatically initiate a disconnect from the SCL system within two (2) seconds if the voltage rises above 132 Volts rms phase to ground or falls below 104 Volts rms phase to ground (nominal 120 V rms base) on any phase.
   d. Power output control system shall automatically initiate a disconnect from the SCL system within six (6) cycles if the frequency rises above 60.3 Hz or falls below 59.3 Hz.
   e. Customer's net metering output distortion shall be in compliance with IEEE Standard 519.
   f. Generating systems must be designed and operated so that islanding is not sustained on radial distribution system as per the current IEEE Standard 929.
   g. The need for additional protection equipment shall be determined by SCL on case-by case-basis.

6. **Solar Equipment** shall be in compliance with Underwriters Laboratories (UL) 1741, *Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems*; UL 1703, *Standard for Safety: Flat-Plate Photovoltaic Modules and Panels*; and IEEE 1262-1995, *Recommended Practice for Qualification of Photovoltaic (PV) Modules*; and the solar system shall be installed in compliance with IEEE Standard 929-2000, *Recommended Practice for Utility Interface of Photovoltaic Systems*.

C. Safety

All safety and operating procedures for joint use equipment shall be in compliance with the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1910.269, the National Electrical Code (NEC), Washington Administrative Code (WAC) rules, the Washington Industrial Safety and Health Administration (WISHA) standard, the SCL Electric System Operating Procedures Manual, and equipment manufacturer's safety and operating manuals.